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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,861	12/27/2001	Robert E. Beach	SBL00798-C01	9518
22917 7590 04/12/2011 MOTOROLA SOLUTIONS, INC. IP Law Docketing 1303 EAST ALGONQUIN ROAD IL01/11th Floor SCHAUMBURG, IL 60196				
			EXAMINER SHEDRICK, CHARLES TERRELL	
			ART UNIT 2617	PAPER NUMBER
			NOTIFICATION DATE 04/12/2011	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USAdocketing@motorolasolutions.com

Office Action Summary

Application No.

10/033,861

Applicant(s)

BEACH ET AL.

Examiner

CHARLES SHEDRICK

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-29, 32-35 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-29, 32-35 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(e) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims **24-29 and 32-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Diepstraten et al. US Patent No.: 5,329,531, hereinafter, “Diepstraten” in view of Regnier et al. US Patent Pub. no.: 2005/0058147, hereinafter, ‘Regnier’ and further in view of Nichols WO 00/30307.

Consider claims 24 and 25, Diepsraten teaches a Method and An access point that provides voice and data communications for use in a wireless local area network having a plurality of mobile units(**i.e., Iso-synchronous and Asynchronous Traffic**)(e.g., **see at least the abstract of disclosure and col. 2 lines 15-34**), said access point being configured to: receive signals carrying communications packets directed to particular mobile units(e.g., **see at least base stations and mobile stations noted with respect to figure 1**); prioritize said communications packets for transmission based on: whether a current packet is a voice communication packet and the voice communication packet is prioritized higher than the other communications packet (**i.e., iso vs asynch traffic- time sensitive traffic is given priority**)(e.g., **see at least col. 2 line 15-col. 3 line 37**);

However, Dieprateten does not specifically teach prioritize said communications packets for transmission based on: a network management packet and wherein the some packets are prioritized higher than the voice communication; the total number of packets transmitted to each mobile unit; and the order in which the packets were received by the access point.

In analogous art, Regnier teaches that Network management packet with higher priority (**i.e., the higher priority can be assigned to network management packets for administrative purposes - paragraph 0029**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Dieprateten to include where the network management packets have the higher priority over other packets including data and voice for the purpose of administrative type communication as taught by Regnier.

However, Dieprateten and Regnier does not specifically teach prioritize said communications packets for transmission based on: the total number of packets transmitted to each mobile unit; and the order in which the packets were received by the access point.

In analogous art, Nichols teaches prioritize said communications packets for transmission based on: the total number of packets transmitted to each mobile unit (**i.e., the rate includes -the total number of packets per unit time. the network controls the queues- the amount of time a packet remains on queue depends on the total number of packets and level of service- page 6 lines 10-13, lines 24-30**); and the order in which the packets were received by the access point (**i.e., FIFO- page 10 lines 10-12**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the priority methods Dieprateten and Regnier to include prioritize said communications packets for transmission based on: the total number of packets transmitted to each mobile unit; and the order in which the packets were received by the access point for the purpose of prioritizing data according to differentiated services as taught by Nichols (**The Examiner respectfully notes that the priority schemes appear to be obvious combinations of well known priority schemes – e.g., round robin, weighted round-robin, FIFO, etc.**).

Consider **claims 26 and 32**, Dieprateten teaches a method and a transmitter for use in a carrier sense multiple access communications system(e.g., **see at least abstract of disclosure**), said transmitter being configured to: receive signals carrying communications packets directed to particular receiver units(e.g., **see at least base stations and mobile stations noted with respect to figure 1**); prioritize said communications packets for transmission based on: whether a current packet is a voice communication packet(i.e., **iso vs asynch traffic**)(e.g., **see at least col. 2 line 15-col. 3 line 37**); and use a contention window of a first duration for transmitting packets that are for voice communications(i.e., **using a medium access procedure to share medium**)(e.g. **see at least col. 2 line 15 -col. 3 lines 37 and col. 6 lines 60-65- also note that the timing periods are generated based for priority traffic as outlined in the abstract**); and use another contention window of a second duration that is different from said first duration for transmitting other packets(i.e., **see amount of data within available time, frame period and using a medium access procedure to share medium**)(e.g. **see at least col. 2 line 15 -col. 3 lines 37 and col. 6 lines 60-65**).

However, Dieprateten does not specifically teach prioritize said communications packets for transmission based on: a network management packet and wherein the some packets are prioritized higher than the voice communication; the total number of packets transmitted to each mobile unit; and the order in which the packets were received by the access point.

In analogous art, Regnier teaches that Network management packet with higher priority (i.e., **the higher priority can be assigned to network management packets for administrative purposes - paragraph 0029**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Dieprateten to include where the network management packets have the higher priority over other packets including data and voice for the purpose of administrative type communication as taught by Regnier.

However, Diepstraten and Regnier does not specifically teach prioritize said communications packets for transmission based on: the total number of packets transmitted to each mobile unit; and the order in which the packets were received by the access point.

In analogous art, Nichols teaches prioritize said communications packets for transmission based on: the total number of packets transmitted to each mobile unit (**i.e., the rate includes -the total number of packets per unit time. the network controls the queues- the amount of time a packet remains on queue depends on the total number of packets and level of service- page 6 lines 10-13, lines 24-30**); and the order in which the packets were received by the access point (**i.e., FIFO- page 10 lines 10-12**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the priority methods Diepstraten and Regnier to include prioritize said communications packets for transmission based on: the total number of packets transmitted to each mobile unit; and the order in which the packets were received by the access point for the purpose of prioritizing data according to differentiated services as taught by Nichols

Consider claims **27 and 33 and as applied to claims 26 and 32**, Diepstraten teaches wherein the first duration is shorter than the second duration(**e.g., see at least col. 5 lines 6-16 and window size for time slots noted in at least col. 6 lines 56 - col. 7 line 7**).

Consider claims **28 and 34 and as applied to claims 26 and 32**, Diepstraten as modified

by Jorgensen and further modified by Regnier wherein said transmitter is an access point of said communications system(e.g., **see at least context of base station in figure 1**).

Consider claims **29 and 35 and as applied to claims 26 and 32**, Diepstraten teaches wherein said transmitter is a remote terminal in said communications system(e.g., **see at least context of station in figure 1**).

5. Claim **41** is rejected under 35 U.S.C. 103(a) as being unpatentable over Diepstraten et al. US Patent No.: 5,329,531, hereinafter, "Diepstraten" in view of Regnier et al. US Patent Pub. no.: 2005/0058147, hereinafter, 'Regnier' in view of Nichols WO 00/30307 and further in view of Tzeng US Patent No.: 6,438,135.

Consider claim 41 and as applied to claim 32, Diepstraten as modified by Jorgensen and further modified by Regnier teaches the claimed invention except transmitting packets in rounds, wherein in each round an equal number of packets is transmitted to each receiver unit.

However, in analogous art, Tzeng teaches transmitting packets in rounds (i.e., **round robin queuing – col. 1 line 20**), wherein in each round an equal number of packets is transmitted to each receiver unit (e.g., **same number of packets are sent from each queue – col. 1 lines 30-35**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Diepstraten as modified by Jorgensen and further modified by Regnier to include transmitting packets in rounds, wherein in each round an equal number of packets is transmitted to each receiver unit for prioritizing and shaping traffic in a well known fashion such as RR queuing as taught by Tzeng.

6. Claims **24-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Diepstraten et al. US Patent No.: 5,329,531, hereinafter, "Diepstraten" in view of Regnier et al. US Patent Pub. no.: 2005/0058147, hereinafter, 'Regnier' and further in view of Panjak WO 00/41542.

Consider claims 24 and 25, Diepsraten teaches a Method and An access point that provides voice and data communications for use in a wireless local area network having a plurality of mobile units(**i.e., Iso-synchronous and Asynchronous Traffic**)(e.g., **see at least the abstract of disclosure and col. 2 lines 15-34**), said access point being configured to: receive signals carrying communications packets directed to particular mobile units(e.g., **see at least base stations and mobile stations noted with respect to figure 1**); prioritize said communications packets for transmission based on: whether a current packet is a voice communication packet and the voice communication packet is prioritized higher than the other communications packet (**i.e., iso vs asynch traffic- time sensitive traffic is given priority**)(e.g., **see at least col. 2 line 15-col. 3 line 37**);

However, Dieprateten does not specifically teach prioritize said communications packets for transmission based on: a network management packet and wherein the some packets are prioritized higher than the voice communication; the total number of packets transmitted to each mobile unit; and the order in which the packets were received by the access point.

In analogous art, Regnier teaches that Network management packet with higher priority (**i.e., the higher priority can be assigned to network management packets for administrative purposes - paragraph 0029**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Dieprateten to include where the network management

packets have the higher priority over other packets including data and voice for the purpose of administrative type communication as taught by Regnier.

However, Dieprateten and Regnier does not specifically teach prioritize said communications packets for transmission based on: the total number of packets transmitted to each mobile unit; and the order in which the packets were received by the access point.

In analogous art, Panjak teaches prioritize said communications packets for transmission based on: the total number of packets transmitted to each mobile unit (**the scheduler apply weights to the individual nodes which takes into account the queue size – page 3 lines 28-34 – the channel scheduler receives the queue size which is indicative of the amount of data to transmit to the remote station- page 7 lines 32-35.**

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the priority methods Dieprateten and Regnier to include prioritize said communications packets for transmission based on: the total number of packets transmitted to each mobile unit; and the order in which the packets were received by the access point for the purpose of prioritizing data according to differentiated services as taught by Panjak. Furthermore, handling packets in the order in which they were received is conventional technique in the art (e.g., FIFO – first in first out) and would thus only require routine skill in the art. **(The Examiner respectfully notes that the priority schemes appear to be obvious combinations of well known priority schemes – e.g., round robin, weighted round-robin, FIFO, etc).**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES SHEDRICK whose telephone number is (571)272-8621. The examiner can normally be reached on Monday thru Friday 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles Shedrick/
Primary Examiner, Art Unit 2617